United States Department of the Interior

FISH AND WILDLIFE SERVICE
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TO: Rafael Casanova, Remedial Project Manager
U.S. Environmental Protection Agency Region VI

FROM: Clare Lee, Contaminant Specialist
U.S. Fish & Wildlife Service

DATE: June 27, 2005

RE: Comments on the Falcon RI/FS Workplan: Version dated 5/5/2005

I have reviewed the Falcon Refinery RI/FS Work Plan and the Field Sampling plan dated 5/05/2005. Thank you for the opportunity to provide comments. If you have any questions, I can be reached at 361/994-9005 X 247.

General Comments:

1. Page 1, Section 1.0 correctly states that the objective of the RI/FS is to "determine the nature and extent of contamination and any threat to public health, welfare, or the environment caused by the release, or threatened release of hazardous substances, pollutants, or contaminants at or from the site" however, the sampling plan fails to include any samples from wetlands to the southeast, east, and northeast. In order to determine the extent of the contamination due to the unknown materials that were used and spilled, the wetlands must be sampled. Page 7, Section 2.2.1.6 states that sampling the wetlands will be delayed while "the ARM spill is resolved". Page 2, Section 4.0 and Page 20, Section 6.1 of the Field Sampling Plan also discusses delaying the sampling of the wetlands. A delay is unacceptable; any additional information can be collected simultaneously. A complete sampling plan for the wetlands should be included in the RI/FS.

2. Sections taken directly from the HRS should be clearly delineated with a different font.

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Work Plan

1. Page 3, Section 2.1: The document states "NORCO never operated the facility or spilled any materials." This statement should be deleted from the text. The second paragraph of this section states that NORCO purchased the facility in 1990 and still owns the facility.

2. Page 4, Section 2.2.1: "The discharge was covered under Permit 02142 until the NPDES permit was received." Further discussion is needed concerning the NPDES permits, such as the date the permit was received, limitations, and any monitoring associated with the discharge.

3. Page 5, Section 2.2.1.4: Section 2.2.1 states that there was a discharge occurring into Corpus Christi Bay, but Section 2.2.1.4 states that the new permit (NPDES permit #TX0076635 with an expiration date of 1991 is listed in Reference 10) was never used. Was the discharge continuing under Permit 02142 or did the discharge cease? What changes in the operation of the facility occurred that would negate the need for a discharge?

4. Page 8, Section 2.2.3: Pipeline locations and ownership need to be established and included on a map.

5. Page 11, Section 2.2.3: Tanks 32 and 33, related to the vinyl acetate, are not indicated on a map.

6. Page 13, Section 2.2.3.2: Paragraph 4 indicates that permit 02142 included a temporary pond to store treated effluent. Please include the location and cite a map number for this pond.

7. Page 14, Section 2.2.3.2: Paragraph 6 describes a 1995 pipeline spill and paragraph 7 includes a reference to a drawing depicting the subsequent field sampling but there is no map to indicate the location of the spill itself.

8. Page 27, Section 5.5.9: The section labeled 'In-Water Segment 1 – Wetlands-Probable Point of Entry' references pp 2-3 of Reference 24 but the document is only one page. Several of the other references on the website do not match up with the documents listed in the text of section 5.5.9.

Field Sampling Plan

1. Page 4, Section 5.1.2: The RI/FS states "There is a half buried small tank on the North Site that does not appear on site plans." But there are no further details or discussion about the contents, if any, or the removal of this tank.

2. Page 5, Section 5.1.3: Figure 5 does not show the monitor wells MW-1, MW-2, MW-3, and MW-4 as the text indicates.

3. Page 6, Section 5.1.4: From the aerial photograph, Boring AOC1B-11 appears to be on a road or berm in Figure 6, which would not be an appropriate sample location.

4. Page 9, Section 5.2.1.4: From the aerial photograph, Borings AOC2B-1, AOC2B-2, and AOC2B-3 still appear to be located in the middle of a road as was pointed out on the last round of comments. These locations are inappropriate if they are indeed on a road. However, if this is not the case, a site visit may be necessary to confirm. Borings AOC2B-11, AOC2B-12, and AOC2B-13 are west of AOC2B-1, AOC2B-2, and AOC2B-3 are further from the wetlands and yet these samples are intended to assess potential impacts to the wetlands. Sampling from the actual wetlands is necessary to determine impacts.

   The Field Sampling Plan states that Borings AOC2B-6, AOC2B-7, AOC2B-8 and AOC2B-9 are designed to determine the down-gradient extent of each of the tank berm areas and yet they are only located within two of the four tank berms. Please explain.

   Borings AOC2B-1, AOC2B-2, and AOC2B-3 were selected to determine the up-gradient extent of AOC-2 and yet these same sites will determine the down-gradient extent as monitoring wells. Please explain. Perhaps this is an editorial error.

5. Page 25, Section 6.5.1: There are still a number of questions surrounding the NPDES permit and discharges. It is premature to rule out sampling this AOC.

6. Page 25, Section 6.6.1: Although NORCO may not currently own the docking facility, the 2002 spill on Offshore Specialty Fabricators property showed pipelines that may belong to NORCO and still contain material. Since the ownership, contents, and structural soundness of these pipelines has not been determined, it is premature to rule out sampling of this AOC.

Falcon Refinery

Distribution of Stratified Random Samples Based on HRS Arsenic Samples and Sample Group Standard Deviation

All Soil Samples **with Arsenic analyte** (from HRS Document)

Soil Sample Name	As	SQL	Comment
	mg/kg	mg/kg	
SO-01	ND	2.13	
SO-02	ND	2.2	
SO-04	ND	2.2	
SO-09	ND	2.3	
SO-10	0.81	2.3	LJv
SO-11	1	2.5	LJv
SO-12	2.6	2.1	Jv
SO-13	ND	2.5	
SO-14	0.86	2.2	LJv
SO-16	4.9	2.5	Jv
SO-17	1.5	2.4	LJv
SO-18	1.1	2.4	LJv
SO-20	ND	2.09	
SO-21	1.9	2.12	LUC
SO-22	7.7	2.3	
SO-23	0.78	2.5	LJv
SO-28	23.3	2.7	
SO-30	1.8	3.1	L
SO-32	ND	2.11	Dup of SO-01
SO-33	5.6	2.3	

All Soil Samples with Arsenic analyte detected, excluding non-detects

Soil Sample Name	As	SQL						Boring	S A	As
Boring	mg/kg	mg/kg	Comment	Source Area	st dev	mean				(mg/kg)
SO-18	1.1	2.4	LJv	1				SO-26	SA 2	As not measured
SO-22	7.7	2.3		1				SO-21	none	2.12
SO-23	0.78	2.5	LJv	1						
SO-28	23.3	2.7		5	10.5471133	8.22				
SO-10	0.81	2.3	LJv	3						
SO-11	1	2.5	LJv	3						
SO-12	2.6	2.1	Jv	3						
SO-14	0.86	2.2	LJv	3						
SO-16	4.9	2.5	Jv	3						
SO-17	1.5	2.4	LJv	3						
SO-30	1.8	3.1	L	3						
SO-33	5.6	2.3		3	1.8730261	2.38375				
st dev	6.39									
mean	4.33									

			Stratum		n=	80				
W/out SO-28 (outlier)		Source Area	st dev		Strata	Area	W_h	$W_h * s_h$	n_h	
SO-18	1.1	1			North Area	398350	0.154384	0.6030482	14	
SO-22	7.7	1			1,2,4,5	220383	0.085411	0.3336302	8	
SO-23	0.78	1	3.906166066		Src Area 3	685199	0.265554	0.49739	12	
SO-10	0.81	3			South Area	1276328	0.494651	1.9321887	46	
SO-11	1	3			Total:	2580260		3.3662571	80	
SO-12	2.6	3								
SO-14	0.86	3			Allocate samples to strata: must assume St dev & mean for all source areas other than					
SO-16	4.9	3			source area 3 to be equal to source area 1. No arsenic data for north area or areas 2, 4, 5.					
SO-17	1.5	3			No Arsenic data for wetlands areas.					
SO-30	1.8	3								
SO-33	5.6	3	1.873026104							
St. Dev.	2.38									
mean	2.60									